

10066590.126604

Fig. 1A



Fig. 1B

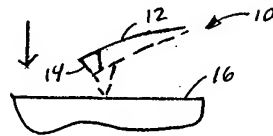


Fig. 1C

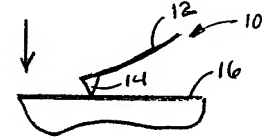


Fig. 1D

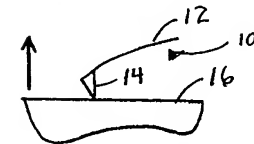


Fig. 1E

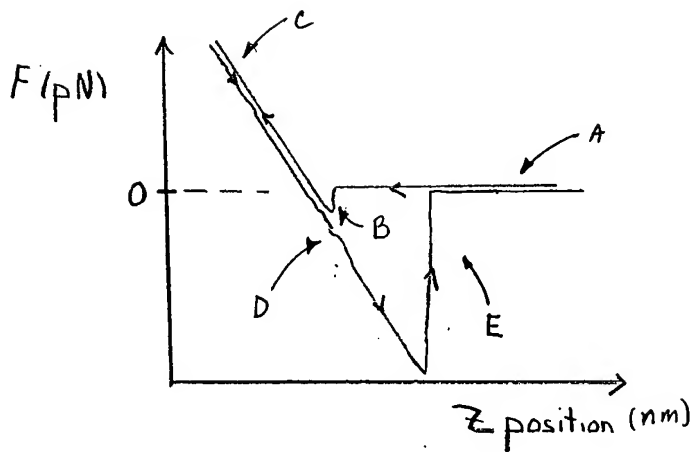
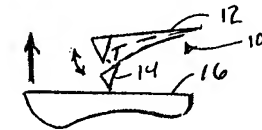


Fig. 2

10066390-120601

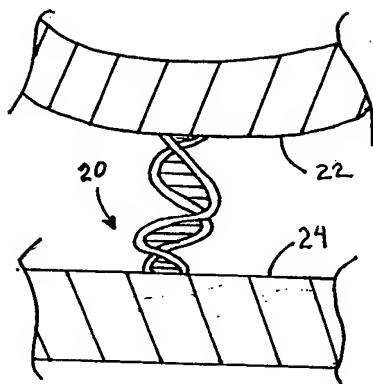


Fig. 3

This diagram illustrates a laser-based measurement system. A laser source (50) emits a beam (52) through a lens (51) towards a target (46) on the wellbore wall. A receiver (54) is positioned to receive the reflected beam (52). The distance between the laser source and the target is labeled as L . The distance between the receiver and the target is labeled as L' . The wellbore is shown as a vertical cylinder (32) with a bottom section (34) divided into two chambers (38 and 40). A sensor (36) is located at the top of the wellbore. The entire system is labeled as 30.

Fig. 4

10006090.120601

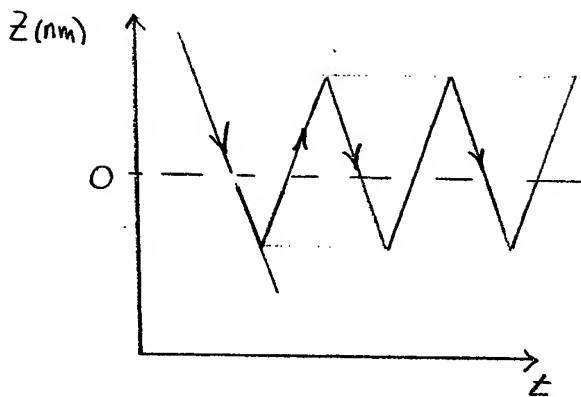


Fig. 5A

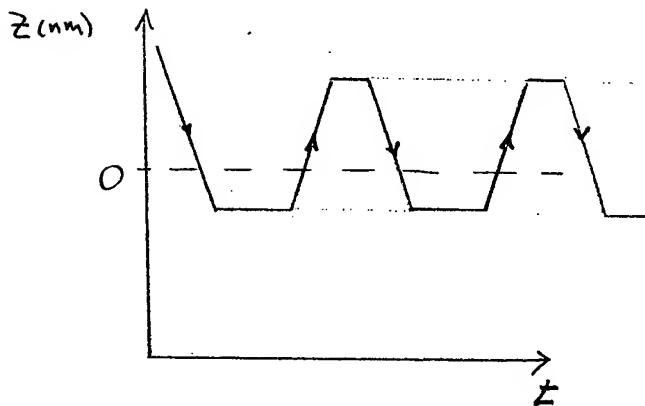


Fig. 5B

109921-06090001

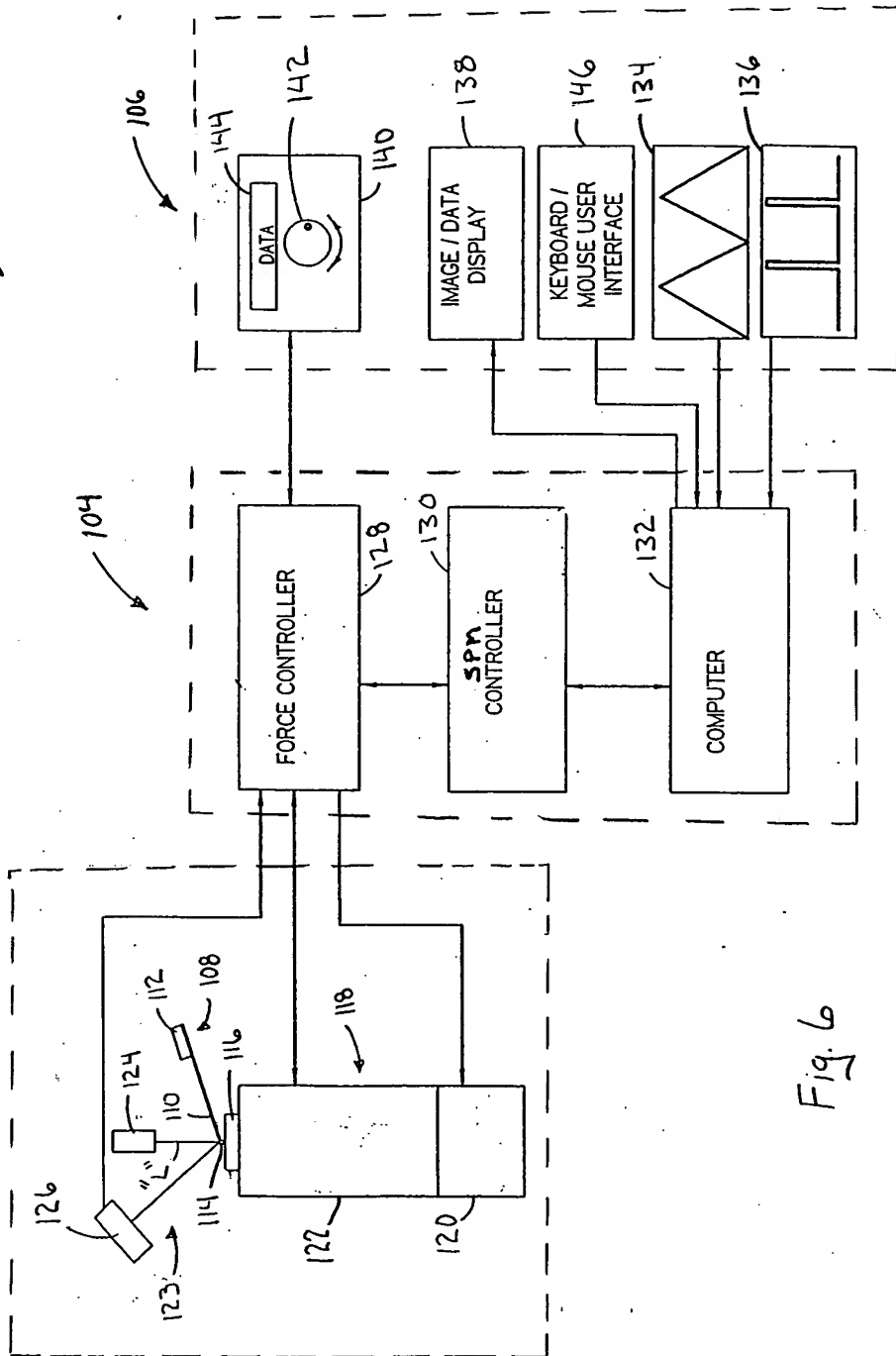


Fig. 6

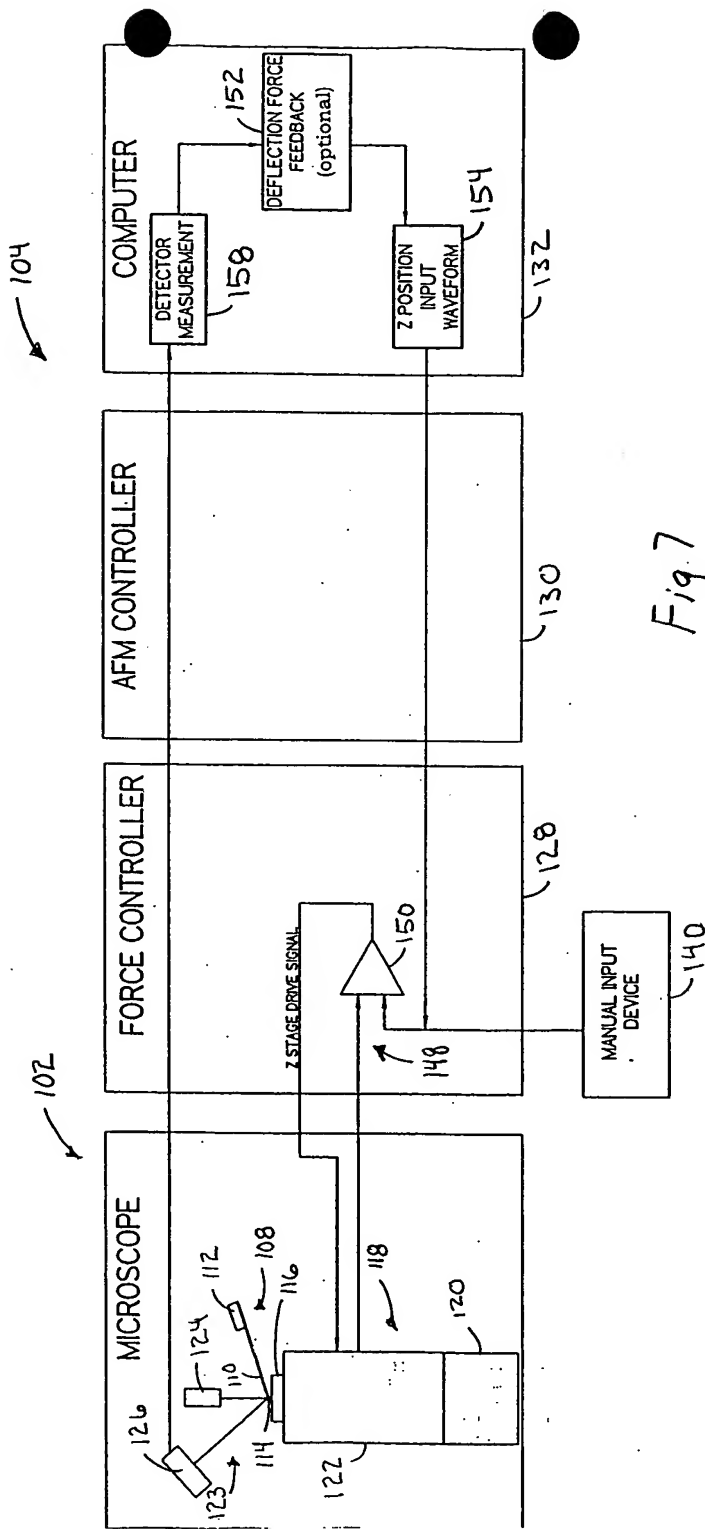


Fig. 7

10000000-1200001

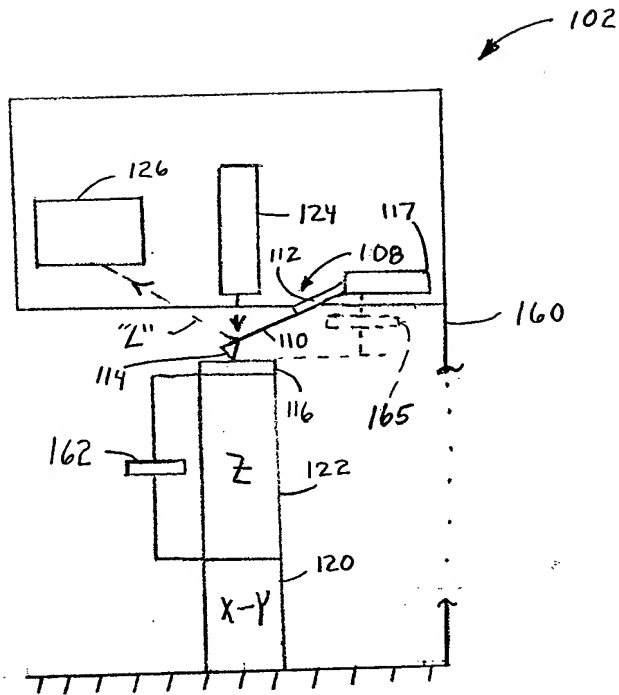


Fig. 8

10006090-120601

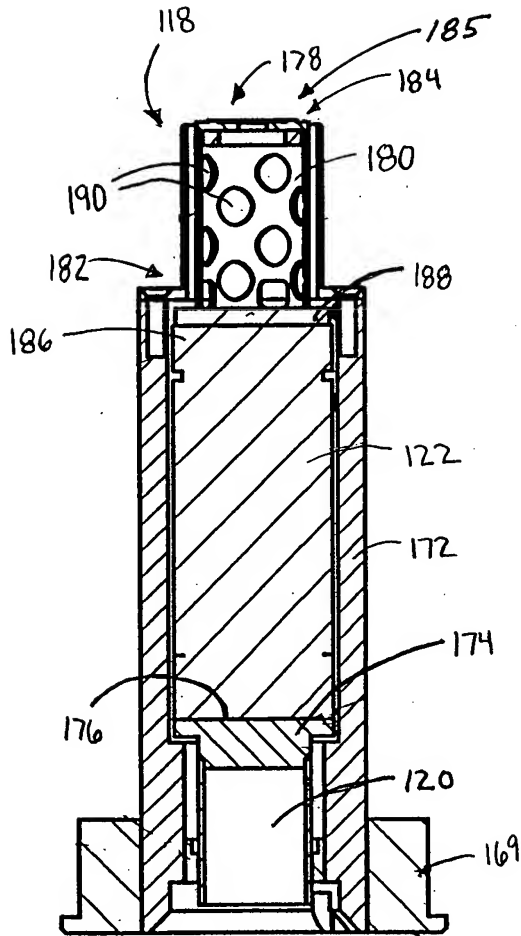


Fig. 9

1000000-120001

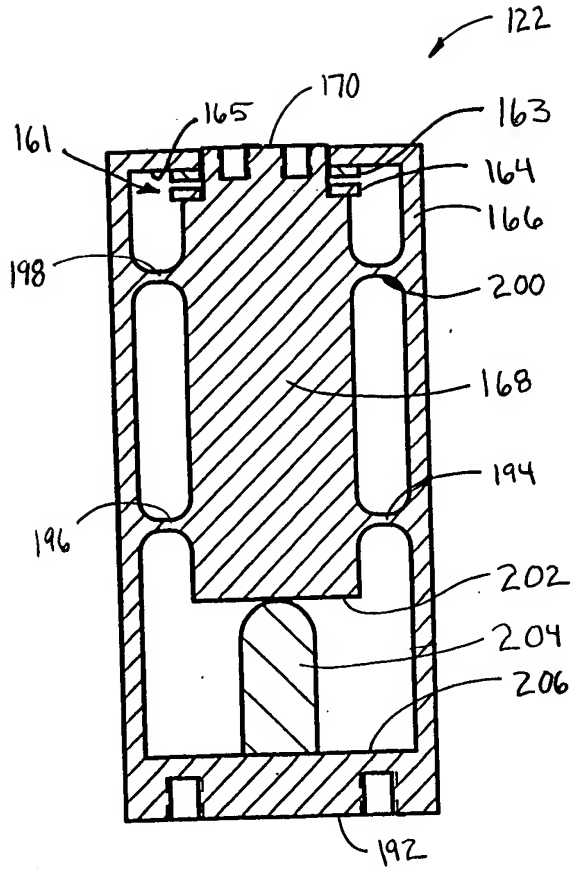
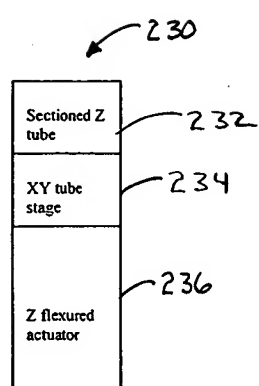
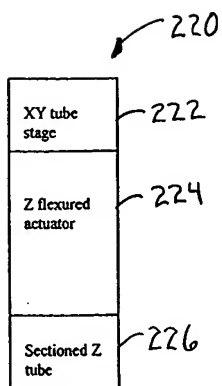
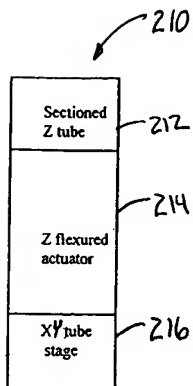


Fig. 1D
(prior art)



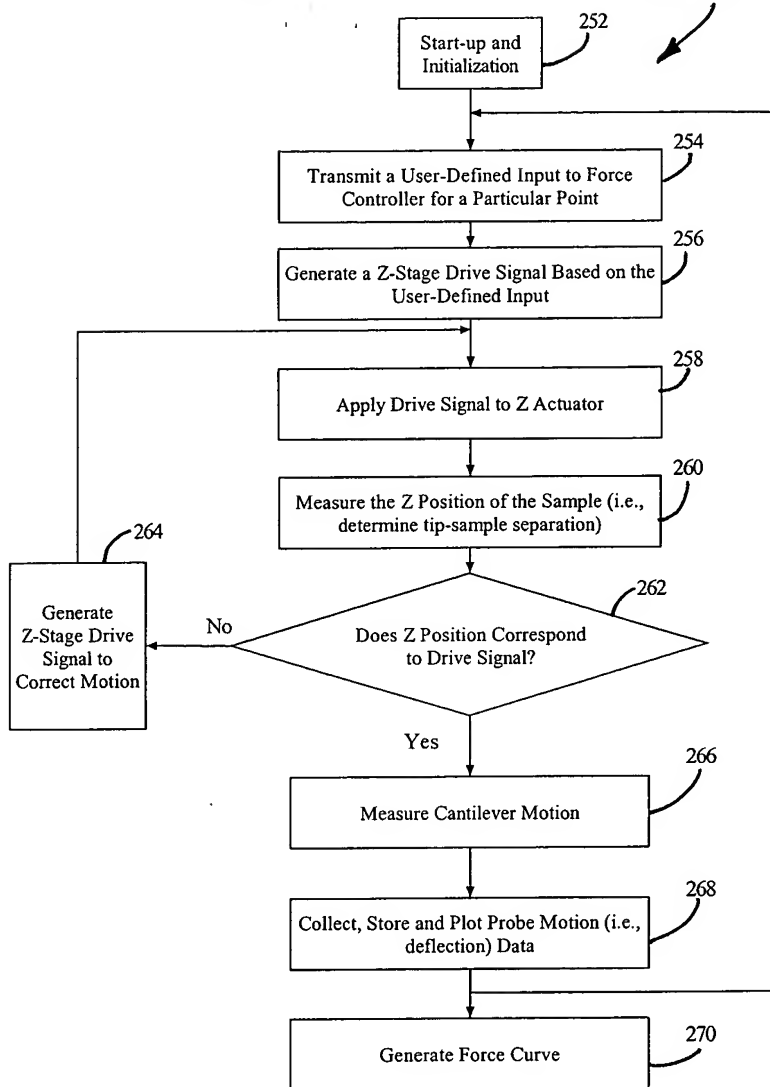


Fig. 12

10006090.120601

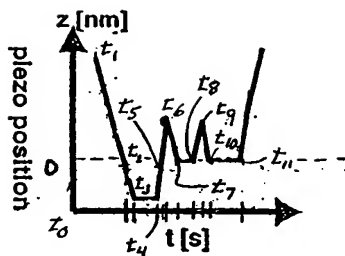


Fig. 13A

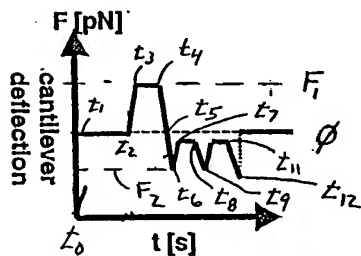


Fig. 13B

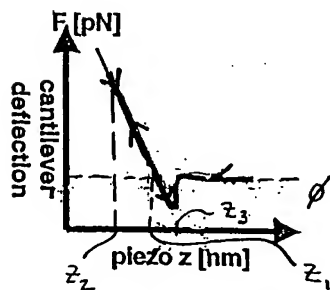


Fig. 13C

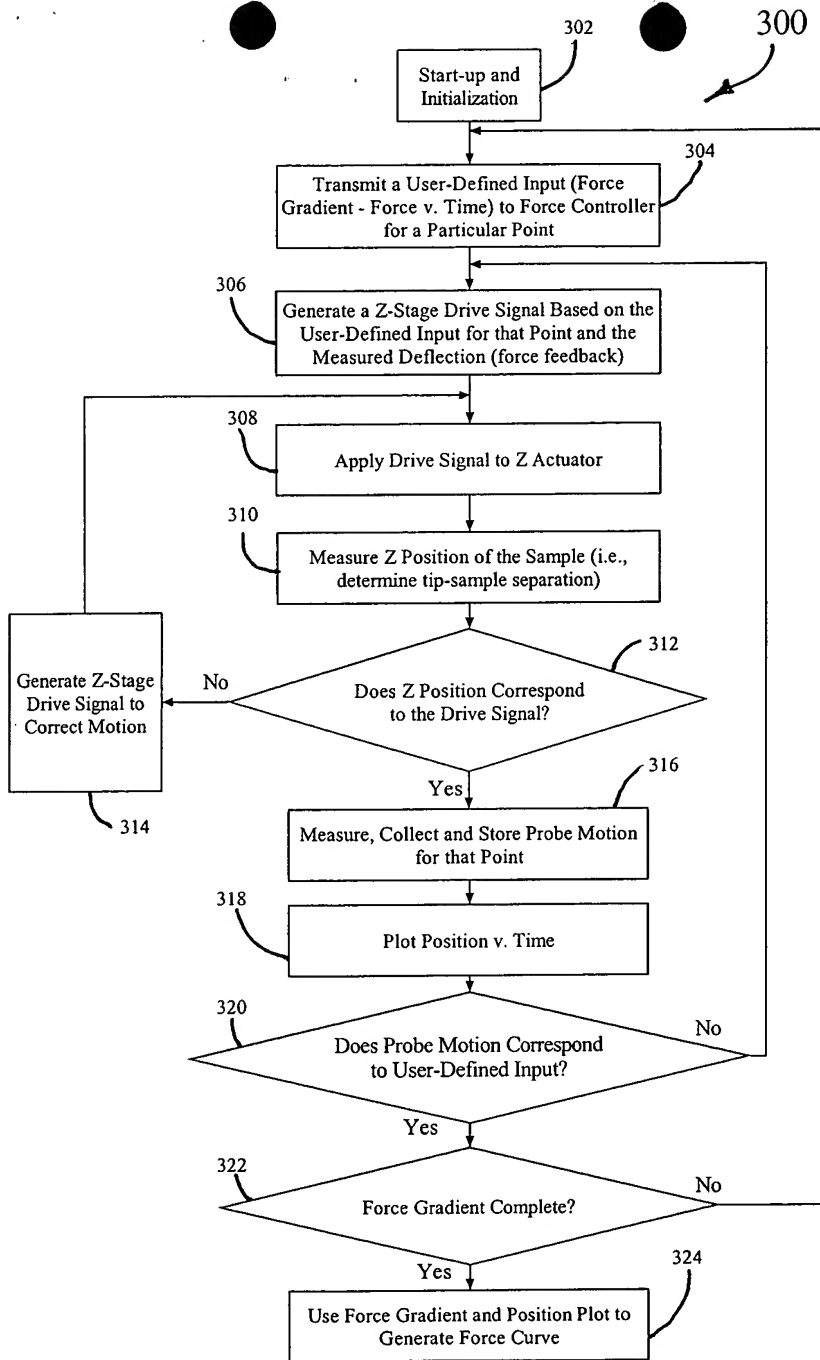


Fig. 14

Fig. 15C

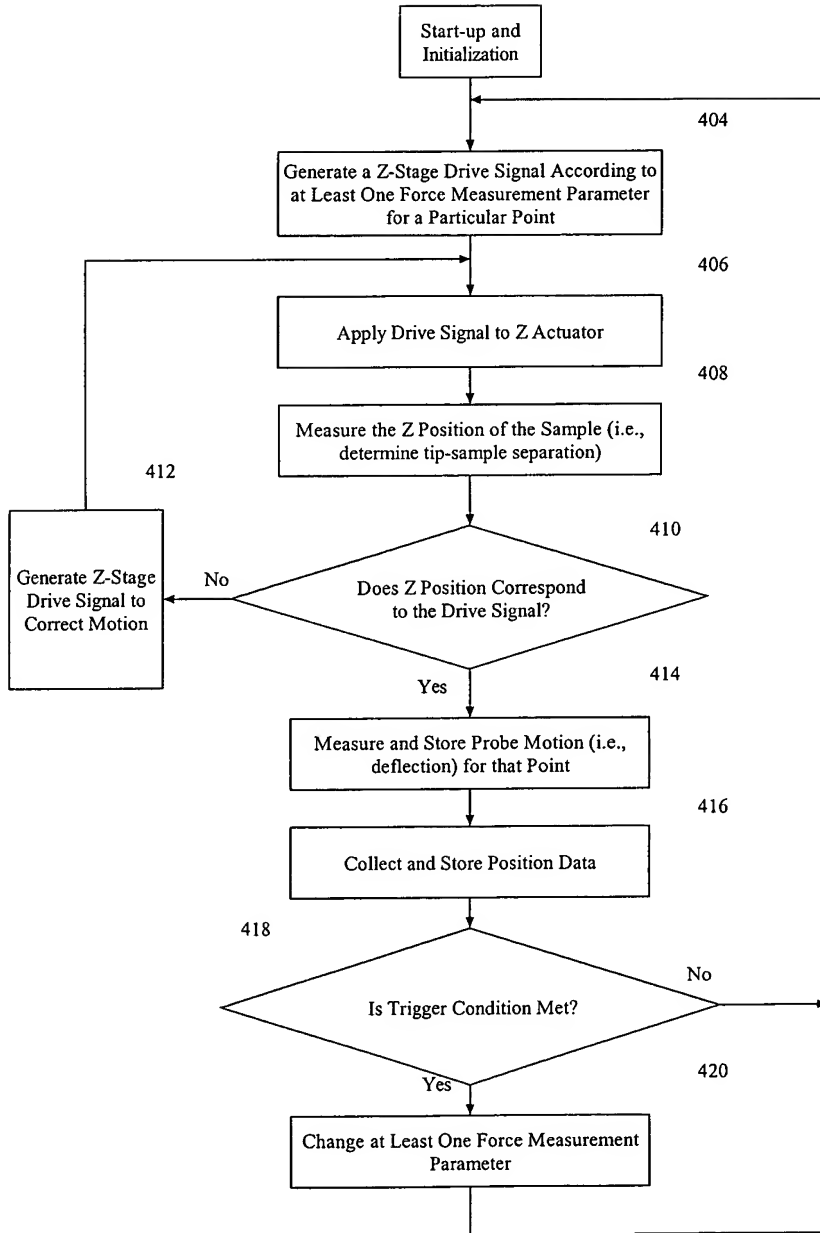


Fig. 16

TRIGGERS

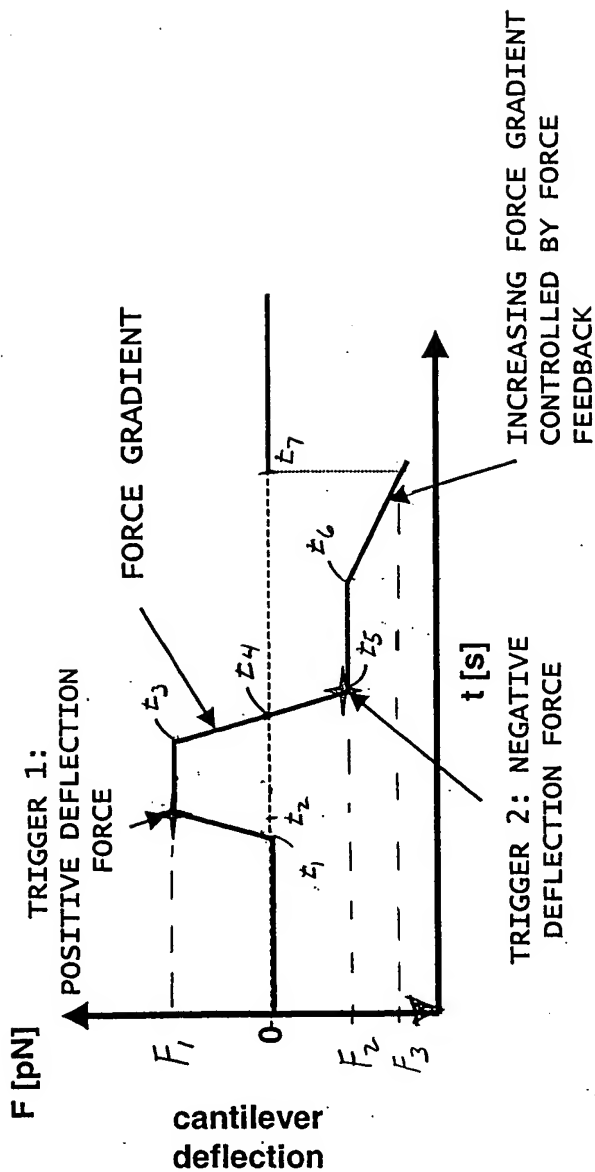


Fig.17

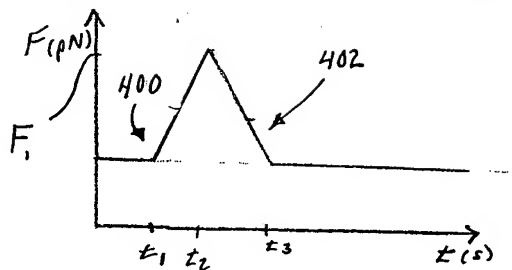


Fig. 18A

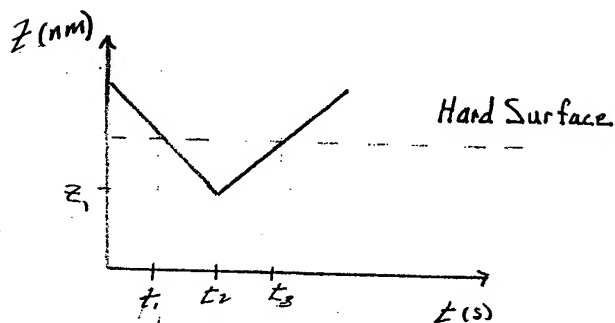


Fig. 18B

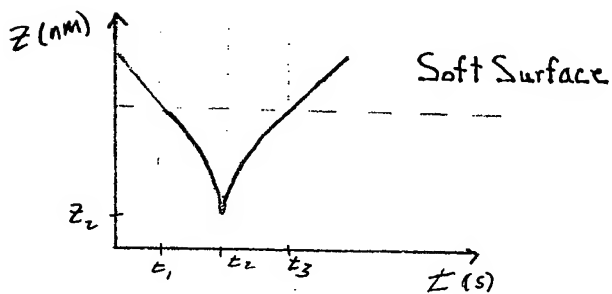


Fig. 18C

1506550-120604

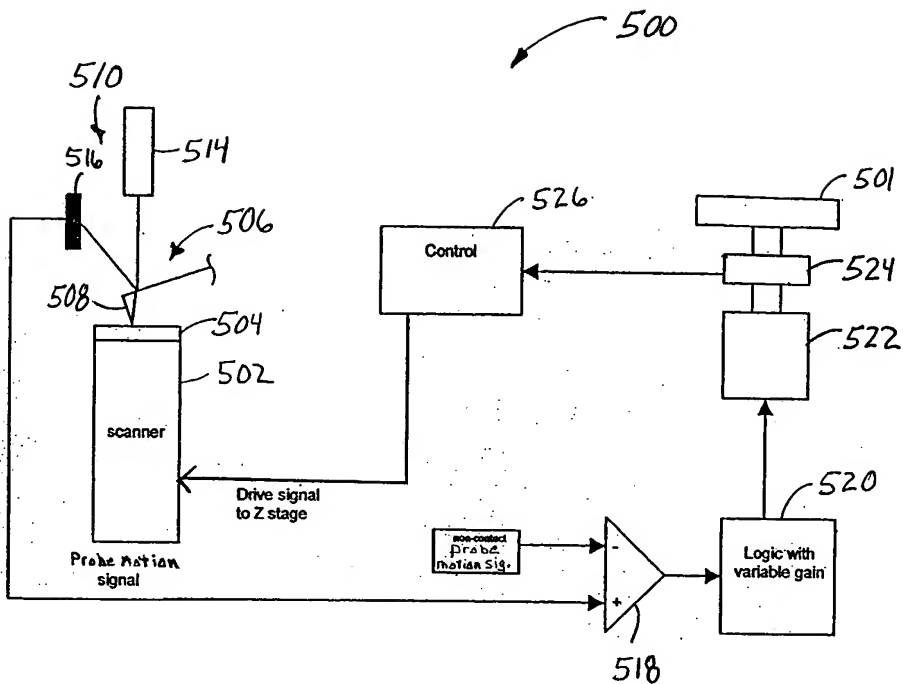


Fig. 19